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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,612	12/24/2003	Daniel W. Cushing	03-1090	1611
64722	7590	03/09/2007	EXAMINER	
OSTRAGER CHONG FLAHERTY & BROITMAN, P.C.			PIZIALI, ANDREW T	
250 PARK AVENUE			ART UNIT	PAPER NUMBER
SUITE 825			1771	
NEW YORK, NY 10177-0899				
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/09/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/707,612	CUSHING ET AL.
	Examiner	Art Unit
	Andrew T. Piziali	1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 January 2007.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2,4-18 and 40 is/are pending in the application.
- 4a) Of the above claim(s) 6-18 and 40 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2,4 and 5 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12/24/03 & 11/9/05 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. The amendment filed on 1/25/2007 has been entered. The examiner has withdrawn the rejections of claim 3 based on the cancellation of claim 3.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The specification is silent regarding a substantially continuous nonwoven thermoplastic polyphenylsulfone substrate. Firstly, the specification is silent regarding the substrate being nonwoven. Secondly, the specification is silent regarding a substrate that is specifically not woven. It is noted that any negative limitation or exclusionary proviso must have basis in the original disclosure. See *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion. See MPEP 2173.05(i).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication 2004/0219855 to Tsotsis in view of USPN 5,319,003 to Gomez et al. (hereinafter referred to as Gomez).

Regarding claims 1, 2, 4 and 5, Tsotsis discloses a two-layer composite material formed from a substantially continuous nonwoven polyphenylsulfone substrate material and a plurality of unidirectional long glass fibers substantially embedded within the substrate material (see entire document including [0022], [0023], [0032], [0036], [0040] and Figures 3 and 3a). Tsotsis discloses that a substrate material may be bonded to one or both sides of the unidirectional fabric [0040] and may be infused with resin to form a substantially continuous material [0045]. Tsotsis discloses that the fibers can be taken from a creel containing multiple spools of (long) fibers [0022]. Tsotsis discloses that the polyphenylsulfone substrate material may comprise continuous fibers [0029].

Tsotsis is silent with regards to specific glass fibers, therefore, it would have been obvious to look to the prior art for conventional glass fibers. Gomez provides this conventional teaching showing that it is known in the resin/fiber composite art to use s-type or e-type glass fibers (see entire document including column 2, lines 60-68 and column 3, lines 28-31). Therefore, it would have been obvious to one having ordinary skill in the art at the time the

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invention was made to make the glass fibers from s-type or e-type glass fibers, as taught by Gomez, motivated by the expectation of successfully practicing the invention of Tsotsis. It is noted that the s-type and e-type glass fibers inherently have a melting temperature above the melting temperature of a polyphenylsulfone substrate (see current specification [0027]).

Considering that the composite taught by the applied prior art is substantially identical to the claimed composite in terms of a polyphenylsulfone substrate material with substantially embedded long e-type or s-type glass fibers, it appears that the structure taught by the applied prior art inherently possesses the claimed properties.

Regarding claim 2, Tsotsis discloses that glass fibers may comprise a plurality of unidirectional long glass fibers [0022].

Regarding claims 4 and 5, the applicant claims that the composite material is for use in a specific component. Considering that the composite taught by the applied prior art is substantially identical to the claimed composite in terms of substrate material and embedded fibers, it appears that the prior art structure is capable of performing the intended use.

#### ***Response to Arguments***

6. Applicant's arguments filed 1/25/2007 have been fully considered but they are not persuasive.

Regarding the 35 U.S.C. 112 first paragraph rejection, the applicant asserts that "It is patently clear that the substrate is not a woven material or a fabric." The examiner respectfully disagrees. Firstly, the applicant fails to cite any portion of the specification that refers to a

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nonwoven thermoplastic polyphenylsulfone substrate. Secondly, the applicant fails to cite any portion of the specification that specifically refers to the substrate not being woven.

The applicant asserts that the applied prior art fails to teach or suggest the claimed composite material because Tsotsis fails to teach or suggest the use of glass fibers. The examiner respectfully disagrees. Gomez was specifically cited to teach that it is known in the resin/fiber composite art to use s-type or e-type glass fibers.

The applicant asserts that the applied prior art fails to teach or suggest the claimed composite material because Tsotsis fails to teach or suggest that the fibers are embedded in the polyphenylsulfone. The examiner respectfully disagrees. Tsotsis discloses that the fibers may be sandwiched between two layers of polyphenylsulfone material and melt-bonded together ([0040] and Figure 3 and 3a).

### *Conclusion*

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

atp

973 3/20/01  
ANDREW PIZIALI  
PRIMARY EXAMINER